WHAT IS CLAIMED IS:

1. A method of fabricating a semiconductor device comprising the steps of:

forming a first undercoat insulating film having a refractive index different from a refractive index of a substrate over the substrate having a light transmitting performance;

forming a second undercoat insulating film having a refractive index different from the refractive index of the first undercoat insulating film above the first undercoat insulating film;

forming a plurality of projected portions by partially etching the second undercoat insulating film;

forming an amorphous semiconductor film over the second undercoat insulating film formed with the plurality of projected portions; and

forming a crystalline semiconductor film by irradiating a laser beam from a rear face side of the substrate or both sides of a surface side and the rear face side of the substrate to the amorphous semiconductor film;

wherein the crystalline semiconductor film formed over the projected portions is made to constitute a channel forming region of TFT.

2. A method according to claim 1 wherein the semiconductor device is a liquid crystal display apparatus or an EL display apparatus.

3. A method according to claim 1 wherein the semiconductor device is any of a portable telephone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book and a portable type information terminal.

4. A method of fabricating a semiconductor device comprising the steps of:

forming a first undercoat insulating film having a refractive index different from a refractive index of a substrate over the substrate having a light transmitting performance;

forming a plurality of recessed portions by partially etching the first undercoat insulating film;

forming a second undercoat insulating film having a refractive index different from the refractive index of the first undercoat insulating film over the first undercoat insulating film formed with the plurality of recessed portions;

forming an amorphous semiconductor film over the second undercoat insulating film; and

forming a crystalline semiconductor film by irradiating a laser beam from a rear face side of the substrate or both sides of a surface side and the rear face side of the substrate to the amorphous semiconductor film;

wherein the crystalline semiconductor film formed over the recessed portions is made to constitute a channel forming region of TFT.

5. A method according to claim 4 wherein the semiconductor device is a liquid crystal display apparatus or an EL display apparatus.

6. A method according to claim 4 wherein the semiconductor device is any of a portable telephone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book and a portable type information terminal.

7. A method of fabricating a semiconductor device comprising the steps of:

forming a first undercoat insulating film having a refractive index different from a refractive index of a substrate over the substrate having a light transmitting performance;

forming a plurality of projected portions by partially etching the first undercoat insulating film;

forming a second undercoat insulating film having a refractive index different from the refractive index of the first undercoat insulating film over the first undercoat insulating film formed with the plurality of projected portions;

forming an amorphous semiconductor film over the second undercoat insulating film; and

forming a crystalline semiconductor film by irradiating a laser beam from a rear face side of the substrate or both sides of a surface side and the rear face side of the substrate to the amorphous semiconductor film;

wherein the crystalline semiconductor film formed over the projected portions is made to constitute a channel forming region of TFT.

8. A method according to claim 7 wherein the semiconductor device is a liquid crystal display apparatus or an EL display apparatus.

9. A method according to claim 7 wherein the semiconductor device is any of a portable telephone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book and a portable type information terminal.

10. A semiconductor device formed by the steps of: 4

forming a first undercoat insulating film having a refractive index different from a refractive index of a substrate over the substrate having a light transmitting performance;

forming a second undercoat insulating film having a refractive index different from the refractive index of the first undercoat insulating film and having a plurality of projected portions over the first undercoat insulating film;

forming an amorphous semiconductor film over the second undercoat insulating film; and

forming a crystalline semiconductor film by irradiating a laser beam to the amorphous semiconductor film;

wherein the crystalline semiconductor film over the projected portions are made to constitute a channel forming region of TFT.

11. A device according to claim 10 wherein the semiconductor device is a liquid crystal display apparatus or an EL display apparatus.

12. A method according to claim 10 wherein the semiconductor device is any of a portable telephone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book and a portable type information terminal.

13. A semiconductor device formed by the steps of: 5

forming a first undercoat insulating film having a plurality of recessed portions and having a refractive index different from a refractive index of a substrate over the substrate having a light transmitting performance;

forming a second undercoat insulating film having a refractive index different from the refractive index of the first undercoat insulating film over the first undercoat insulating film;

forming an amorphous semiconductor film over the second undercoat insulating film; and

forming a crystalline semiconductor film by irradiating a laser beam to the amorphous semiconductor film;

wherein the crystalline semiconductor film over the recessed portions are made to form a channel forming region of TFT.

14. A device according to claim 13 wherein the semiconductor device is a liquid crystal display apparatus or an EL display apparatus.

15. A device according to claim 13 wherein the semiconductor device is any of a portable telephone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book and a portable type information terminal.

6

16. A semiconductor device formed by the steps of:

forming a first undercoat insulating film having a plurality of projected portions and having a refractive index different from a refractive index of a substrate over the substrate having a light transmitting performance;

forming a second undercoat insulating film having a refractive index different from the refractive index of the first undercoat insulating film over the first undercoat insulating film;

forming an amorphous semiconductor film over the second undercoat insulating film; and

forming a crystalline semiconductor film by irradiating a laser beam to the amorphous semiconductor film;

wherein the crystalline semiconductor film over the projected portions are made to form a channel forming region of TFT.

17. A device according to claim 16 wherein the semiconductor device is a liquid crystal display apparatus or an EL display apparatus.

18. A device according to claim 16 wherein the semiconductor device is any of a portable telephone, a video camera, a digital camera, a projector, a goggle type display, a personal computer, a DVD player, an electronic book and a portable type information terminal.